United States Patent [19]

Waters

[54] AUTOMATED SELF-CLEANING LITTER BOX FOR CATS			
[75]	Invento	r: Mic l Ill.	hael A. Waters, Barrington Hills,
[73]	Assigne	e: Wat	ers Research Company, Elgin, Ill.
[21]	Appl. No.: 371,782		
[22]	Filed: Jan. 12, 1995		
[51] [52] [58]			
[56]		R	eferences Cited
		U.S. PA	TENT DOCUMENTS
. 4	3,734,057 3,811,410 3,096,827 3,117,804 3,190,525	5/1974 6/1978 10/1978	Roberts
4	,325,325 ,325,822	4/1982 4/1982	Larter . Miller
4	,658,720 ,729,342 ,934,317	3/1988 6/1990	Loctin
5 5	,949,672 ,048,465 ,107,797	4/1992	Carlisi . La Roche
5	5,184,575 5,226,388 5,249,549	7/1993	McDaniel .

[11] Patent Number:

5,477,812

[45] Date of Patent:

Dec. 26, 1995

FOREIGN PATENT DOCUMENTS

154540 9/1985 European Pat. Off. 119/166

Primary Examiner—Todd E. Manahan Attorney, Agent, or Firm—Dorn, McEachran, Jambor & Keating

[57]

ABSTRACT

An improved automated self-cleaning litter box for cats, of the kind having a housing defining an upwardly open chamber for storage of a supply of cat litter, accessible to a cat and having path members on opposed side walls defining a comb path from one end of the chamber to the other. A comb, normally stored at the comb storage end of the chamber, is driven forward along the path to the discharge end of the chamber and back to its original storage position. As the comb traverses the chamber forwardly it engages any clumps of waste in the litter and carries them to a disposal receptacle at the discharge end of the chamber. The improvement includes a sensor for sensing the presence of a cat in the litter chamber; a photo electric sensor is preferred, but an infra red, weight, or even an audible sensor can be used. A delay device actuates the comb drive a predetermined time interval after the sensor ceases to sense the presence of a cat in the litter chamber. In the improved construction the comb path includes multi-perforate track members on opposite sides of the litter chamber; those tracks are engaged by rotatable drive wheels connected to the comb. The comb drive includes a reversible electric motor, mounted on the same carriage as the comb. A transparent, biodegradable receptacle is used; alarms for a full receptacle and for an insufficient litter supply are provided.

FA